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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

S-E-C-R-E-T

25X1

COUNTRY USSR (Tula Oblast)

SUBJECT Power Station in Cherepitsa : Description; Capacity

REPORT

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REFERENCES

25X1

DATE OF INFO.

PLACE & DATE ACQ.

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

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a three-page report on the power station at Cherepitsa (N 53-13, E 34-21). The report identifies the installation as being the first super-high pressure, steam turbine power station completed in the USSR. Its present capacity of 300,000 kw is to be doubled under the Sixth Five-Year Plan. The report further provides technical data on boilers; furnaces, which are automatic and electronically controlled; turbines; generators; and transformers located at the power station.

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STATE	X	ARMY	X	NAVY	X	AIR	X	FBI		AEC					

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U. S. S. R.

ECONOMIC

CHEREPITSA Power Station

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1. LOCATION AND FUNCTION

CHEREPITSA Power Station at CHEREPITSA (53°13'N: 34°21'E), in TUL'SKAYA OBLAST, is the first super-high-pressure steam turbine power station to be completed in the U.S.S.R. The station is controlled by "MOSEREREGO" organization. USSR

2. OUTPUT

The capacity of the station [redacted] was 300,000 KW 25X1 Under the 6th Five-Year Plan, the station is to be expanded to double this figure.

3. FUEL

Fuel used is low-grade brown coal with a calorific value of 2,500 cal/kg, ash 30%, moisture content: 33-45%. The use of low-grade fuel of this type enables better quality coal to be reserved for other branches of industry. The power station is sited close to the mines producing the coal, in order to minimize transport costs.

4. TECHNICAL DATA

The station is of the condensation type, constructed on the block system with two boilers and one turbine comprising one generating unit. Details of plant are as follows:

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(a) Boilers.

Five boilers of identical drum type, fitted with radiation, convection and intermediate superheaters; made by the KRASNY KOTEL'SCHIK Factory, TAGANROG.

(i) Steam Producing capacity: 240 t/h.

(ii) Pressure: 175 at.

(iii) Temperature of superheated steam: 555°C.

(iv) Intermediate superheated steam: 343°-525°C.

(b) Furnaces.

The furnaces are provided with square type (sic) slotted, revolving burners using powdered coal. They are automatic, electronically controlled.

(i) Pulverizers: steel-ball trunk-type, two per furnace.

(ii) Smoke purifers: Electric filter.

(iii) Ash disposal: low pressure water system.

(c) Turbines

There are two turbines of identical type, made by the LENINGRAD Ironworks.

(i) Output: 150,000 H.P.

(ii) Pressure of steam at input: 170 at.

(iii) Temperature of steam (superheated): 550°C.

(d) Generators

Two synchronized generators of identical type made by the ELECTROSILA Factory, LENINGRAD:

(i) Output: 167,000 KW

(ii) Cycles: 50.

(iii) COS ? : 0.9

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(e) Transformers - made by the MOSCOW Transformer Factory:

Output	Pressure	Coupling
3 x 60,000 KW	18/220 KV	Y/Δ
1 x 31,500 KW	18/121 KV	"
1 x 60,000 KW	18/121 KV	"
1 x 20,000 KW	121/6 KV	"

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